AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

wherein due to the configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided, wherein the configuration of the guide elements is such that the number of guide elements in the area where the drive element is provided is larger than the number of the guide elements in the area where the drive element is not provided.

2. (Previously Presented) The positioning apparatus according to claim 1, wherein:

there are two guide elements provided on the base in the area where the drive element is provided.

3. (Previously Presented) The positioning apparatus according to claim 2, wherein:

the guide elements provided in the area of the base where the drive element is provided are arranged substantially symmetrically with respect to the drive element.

4. (Previously Presented) The positioning apparatus according to claim 1, wherein

the drive element is formed as a ball screw, and

the guide elements are formed as linear guides.

5. (Previously Presented) The positioning apparatus according to claim 1, wherein

the slider has an opening section.

6. (Previously Presented) An X-Y stage comprising:
the positioning apparatus defined in claim 1.

7. (Previously Presented Amended) The X-Y stage according to claim 6, further comprising second guide elements provided directly on second non-adjacent ends of the base on which there are not provided said guide elements; a second slider which is guided by the second guide elements; and a second drive element provided directly at one of the second non-adjacent ends of the base and which moves the second slider along the second guide elements,

wherein, due to the configuration of the second guide elements, a stiffness of the second slider, in a yawing direction of the second slider, in an area where the second drive element is provided is made higher than that of an area of the second slider opposite to where the second drive element is provided.

8. (Previously Presented) The X-Y stage according to claim 7, wherein said second slider is arranged so as to move in a direction perpendicular to that in which said first slider is arranged to move.

9. (Previously Presented) The positioning apparatus according to claim 1, wherein the guide elements are disposed in parallel to the ends of the base on which they are provided.

10. (Previously Presented) The positioning apparatus according to claim 1, wherein the drive element is not provided at the other one of the non-adjacent ends of the base.

11. (Previously Presented) The positioning apparatus according to claim 1, wherein the drive element and the guide elements are parallel to one another.

12. (Previously Presented) The positioning apparatus according to claim 1, wherein said base is fixed, and said slider moves relative to said base.

13. (Previously Presented) The X-Y stage according to claim 6, wherein said base is fixed, and said slider moves relative to said base.

14. (Previously Presented) The positioning apparatus according to claim 1, wherein a stiffness of the guide element provided on the base in the area where the drive element is provided, is larger than a stiffness of the guide element provided on the base in an area opposite the area where the drive element is provided, so as to achieve said difference in stiffness.

15. (Previously Presented) The positioning apparatus according to claim 1, wherein each of the guide elements further comprises two linear guide bearings disposed on said slider, and further wherein an interval between the linear guide bearings provided in the area on which the drive element is provided, is greater than that between the linear guide bearings provided in the area opposite the area where the drive element is provided, so as to achieve said difference in stiffness.

16. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

wherein due to an asymmetrical configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided, and

further wherein the size of the linear guide in the area where the drive element is provided is increased with respect to the size of the linear guide in the area where the drive element is not provided, so as to produce said asymmetrical configuration and said difference in stiffness.

17. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

wherein due to an asymmetrical configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided,

wherein each of the guide elements further comprises two linear guide bearings disposed on said slider, and further wherein an interval between the linear guide bearings provided in the area on which the drive element is provided, is greater than that between the linear guide bearings provided in the area opposite the area where the drive element is provided, so as to produce said asymmetrical configuration and said difference in stiffness.

18. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

wherein due to the configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided,

wherein the configuration of the guide elements is such that the number of guide elements in the area where the drive element is provided is larger than the number of the guide elements in the area where the drive element is not provided, and

further wherein the size of the linear guide in the area where the drive element is provided is increased with respect to the size of the linear guide in the area where the drive element is not provided, so as to contribute to said difference in stiffness.

19. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

wherein due to the configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided,

wherein the configuration of the guide elements is such that the number of guide elements in the area where the drive element is provided is larger than the number of the guide elements in the area where the drive element is not provided,

wherein each of the guide elements further comprises two linear guide bearings disposed on said slider, and further wherein an interval between the linear guide bearings provided in the area on which the drive element is provided, is greater than that between the linear guide bearings provided in the area opposite the area where the drive element is provided, so as to contribute to said difference in stiffness.

20. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements,

wherein due to an asymmetrical configuration of the guide elements, a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided,

wherein the size of the linear guide in the area where the drive element is provided is increased with respect to the size of the linear guide in the area where the drive element is not provided, so as to contribute to said asymmetrical configuration and to said difference in stiffness, and

further wherein each of the guide elements further comprises two linear guide bearings disposed on said slider, and further wherein an interval between the linear guide bearings provided in the area on which the drive element is provided, is greater than that between the linear guide bearings provided in the area opposite the area where the drive element is provided, so as to contribute to said asymmetrical configuration and to said difference in stiffness.

21. (New) A positioning apparatus comprising:

a base;

guide elements provided directly on non-adjacent ends of the base; a slider which is guided by the guide elements; and

a drive element provided directly at one of the non-adjacent ends of the base, wherein the drive element moves the slider along the guide elements, and

a means for producing a difference in stiffness in the slider such that a stiffness of the slider, in a yawing direction of the slider, in an area where the drive element is provided is made higher than that in an area opposite the area where the drive element is provided.